

the narrowly channelled and solid eaves, sharp and smooth. Slits in valve i, 16; valves ii to vii, 1-1 or 2-1 or 2-2, the larger number prevailing on the more anterior valves; in valve viii, 13. Posterior tooth in the median valves square and well developed.

Girdle rather unevenly covered, with convex, pebbly, coarse scales, those toward the outer margin elongated, and there is a copious marginal fringe of stout hyaline spinules.

Gill-row three-fourths the length of foot, with 21 plumes on each side.

Length about 14, breadth 8 mm.

Unalaska (Dr. Benj. Sharp!).

The number of slits is unusually great, and they are doubled in some valves; the girdle scales are coarse, the marginal fringe conspicuous. These characters, together with the general smoothness of the valves externally, and the undefined, concave sinus, will readily distinguish the species. In view of its numerous slits, solid leaves and coarse girdle-scales, it is aberrant for a *Trachydermon*; but the girdle is not that of *Trachyradsia* nor *Ischnochiton*, and the gill-row is short, extending forward only three-fourths the length of the foot, as in the true *Trachydermons*. It has not the spongy eaves and sinus of *Spongioradsia*.

The slitting of the intermediate valves is variable, but mainly Radsiod. In valve ii there are 2-2 slits; valves iii, iv, v, 2-1; valves vi, vii, 1-1 slits, in the type specimen.

ON THE AMERICAN SPECIES OF CYRENOIDEA.

BY W. H. DALL.

The genus *Cyrenoidea* was published in June, 1835, by de Joannis, in the *Magazin de Zoologie*; by a typographical error, apparently, the Latin form, which was used only once in the article, was printed *Cyrenoida*. A little later in the same year, Deshayes reclaimed the genus for his manuscript name of *Cyrenella*, which had been read to the *Société Philomathique* in December, 1834. The first published name, corrected as above, has been adopted, in spite of the objection to its formation as a Latin name with a Greek suffix.

The original type, *C. Duponti* Joannis, is from the Senegal River, West Africa, and it seems that his specimen was defective, since in

Senegambian specimens I find the hinge quite different from Joannis' figure, and essentially similar to that of American species.

The first of the latter was described by Morelet in 1851, from Porto Rico, under the name of *C. americana*. It differs from the African species by its smaller and more delicate shell, its more quadrate form and proportionately shorter ligament. Some species reported from the Philippines by Sowerby I have shown to have a different hinge and separated under the name of *Joannisiella*.

The first continental American species was obtained by Hemphill in the marshes of southwest Florida (Marco, Boca Ceiga Key, and the Everglades) where it affects brackish, or even tolerably salt water, indifferently. This I named in manuscript *C. floridana* (cf. Bull. 37, U. S. Nat. Mus., 1889, No. 217, p. 50). Lastly a fine Pliocene species was obtained by Mr. Willcox and myself from the marls of the Caloosahatchie River in south Florida.

Diagnoses of the two latter follow.

Cyrenoidea floridana (Dall, MS., 1889) n. s.

Shell rounded, small, thin, very delicate, whitish or translucent with a pale, silky, yellowish, dehiscient epidermis; surface smooth, or sculptured only by incremental lines; interior margin smooth, polished; the visceral area with a dull, more or less punctate surface; pallial line indistinct, often broken, not sinuous; ligament short, brownish, external; hinge as in *C. duponti* but more delicate. Largest specimen, lon. 13·5, alt. 12·5, diameter 8·0.

The range of the species, as far as known, is from Brunswick Georgia, south to the Everglades on the east, and, on the west, north to Charlotte Harbor and vicinity.

The animal is distinctly Lucinoid, the foot is long, slender, filiform and with an ovate, swollen distal termination.

Cyrenoidea caloosænsis n. s.

Shell large, thin, resembling *C. floridana*, but coarser, with ruder concentric sculpture, sometimes approaching undulations; more inequilateral, the anterior part relatively smaller and shorter, the anterior left bifid cardinal tooth proportionately much shorter than in either of the other species of the genus. Lon. of shell 30·9, alt. 27·0, diameter 17·5 mm.

The shell is known, so far, only from the Pliocene marls of south Florida.

All the species are very similar to one another, and differ only in minor details of form and hinge. They would, as a rule, be taken for *Diplodontas* except for the differences of the hinge.